

REMARKS

Claims 1-5 are pending in this application. Claims 1, 4 and 5 have been amended. No new matter has been introduced and no new issues have been raised.

Claims 1-3 and 5 are rejected under 35 U.S.C. §102 as being anticipated by Hollstein et al. (U.S. Patent No. 4,956,519) (“Hollstein”). This rejection is respectfully traversed.

Applicants submit that claims 1-3 and 5 do not recite a catalyst composition but rather a process in which a feed stock is contacted with a catalyst that is not sulphated. The Examiner’s argument made in paragraph 26 (on page 10 of the April 30, 2008 Office Action) fails short, since Hollstein brings a feed stock in contact with a sulphated catalyst. Whether the catalyst is sulphated during its preparation or in a post-treatment is not important.

As mentioned previously during the prosecution of claims 1-5, the hydrogenation component of the claimed invention is a metal, e.g. platinum and/or palladium, whereas the catalyst of Hollstein contains a group VIII metal in its oxide or hydroxide form (col. 2, line 55). Accordingly, the subject matter of claims 1-3 and 5 is not anticipated by Hollstein, and withdrawal of the rejection of these claims is respectfully solicited.

Claims 2 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hollstein. This rejection is respectfully traversed.

Hollstein does not disclose or suggest all limitations of dependent claims 2 and 4. As noted above, Hollstein fails to disclose or suggest all limitations of amended independent claim 1. Hollstein also fails to disclose all limitations of claim 4. Hollstein teaches a catalyst that “preferably contains a major amount of oxide or hydroxide of metal from the first class and a minor amount, preferably in the range from 0.02 to 15.0 weight percent, more preferably 0.1 to 4.5 weight percent, of total metal from the second class and Group VIII metal.” (Col. 2, l. 58-63). Thus, Hollstein teaches a catalyst that contains tungsten oxide and a Group VIII metal in a minor amount (a range of 0.02 to 15.0 wt %) with the remainder being aluminum oxide (oxide or hydroxide of metal from the

first class) in a major amount of at least 85 wt%, and not comprising “10-40 wt % aluminium oxide,” as claim 4 recites. For at least these reasons, the Office Action fails to establish a *prima facie* case of obviousness, and withdrawal of the rejection of claims 2 and 4 is also respectfully requested.

Claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chang (U.S. Patent No. 6,080,904) in view of Yori. Claims 1-5 are also rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang in view of Yori. These rejections are respectfully traversed.

The subject matter of claims 1-5 would not have been obvious over Chang and Yori, or over Zhang and Yori. As detailed on page 5 of the application, second paragraph, aluminium is an important component of the claimed catalyst. The catalysts disclosed by Chang and Zhang do not contain aluminium.

Zhang compares a tungstated zirconia catalyst promoted with platinum for use in hydroisomerization and hydrocracking of Fischer-Tropsch waxes with a sulphated zirconia platinum catalyst. The catalysts show different activities and product composition (see page 65, 3.3 in Fuel processing Technology 69 (2001)).

Similar to Zhang, Chang discloses an isomerization catalyst consisting of zirconia, modified with tungstate and platinum. According to Chang, such catalyst does not need to contain any sulphate ion and is more stable than sulphated catalysts, such as a superacid sulphated catalyst (col.6, lines 28-34 of Chang).

Yori mentions platinum/alumina mixed with sulphated zirconia, despite being a complete different catalyst from that of the claimed invention and from the catalysts mentioned in the above prior art (tungstated zirconia is not present). In fact, Yori teaches away from a catalyst composition consisting of platinum/aluminium, because the activity and selectivity of pure platinum/alumina are very low, whereas the addition of sulphated zirconia gives a better stability and enhances the conversion of n-C₄ (see page 222, left column, second paragraph to right column, second paragraph, in Journal of Catalysis 153, (1995)).

In view of the above and in view of the disclosures in the prior art, no conclusion about the effect of a specific metal compound on stability, activity and selectivity of a catalyst composition can be made by simply adding the metal present in one catalyst composition to a different catalyst composition. Consequently, a person skilled in the art would not have been motivated to incorporate alumina in the platinum-based zirconium oxide catalyst.

Allowance of all pending claims is solicited.

Dated: June 11, 2008

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